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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/091,976	03/06/2002	Leonel Ernesto Enriquez	50135 (SE-1763-TL)	8374

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EXAMINER	
JAMAL, ALEXANDER	
ART UNIT	**PAPER NUMBER**
2643	

DATE MAILED: 10/04/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/091,976	ENRIQUEZ ET AL.	
	Examiner	Art Unit	
	Alexander Jamal	2643	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *06 March 2002*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-35* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-35* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Specification

1. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1- rejected under 35 U.S.C. 102(e) as being anticipated by Caine et al. (6735302).

As per **claim 1,** Caine discloses a SLIC comprising a high voltage analog section 100 (Fig. 1) and a low voltage digital section 102 to monitor, supply input signals and program the analog section (ABSTRACT).

As per **claim 24,** claim is rejected for same reasons as claim 1 rejection. Additionally, the high voltage section comprises tip/ring amplifier unit (Fig. 4) that is able to amplify voice signals as well as ringing signals sent from the codec. The device

further comprises a bias circuit to couple the selected biases (based on the mode of operation) to the amplifier unit in the high voltage section (Col 3 line 44 to Col 4 line 31).

As per **claim 2,** the low voltage unit sends control signals to the high voltage unit (Col 4 lines 25-35).

As per **claim 3,** claim rejected for the same reasons as claim 24 rejection.

As per **claim 4,** the SLIC further comprises a voice signal path (amps 800,802,806 in Fig. 9) with a voltage sense, current feed mode with amps 802 and 806 in a complementary polarity configuration to couple voice signals or ringing signals to the tip and ring (Col 12 line 44 to Col 14 line 20).

As per **claims 5,20,21,22,25,26,33,34,** the amplifiers in the high voltage section have programmable gain based upon the mode of operation designated by the control signals from the low voltage section (Col 12 line 66 to Col 13 line 51).

As per **claim 6,** claim rejected for same reasons as claim 4-5 rejections.

As per **claim 7,** the amplifiers are setup to operate at a first gain for voice transmission and a higher gain for the ringing mode (Col 12 line 44 to Col 14 line 20).

As per **claim 8,27,** Caine's SLIC comprises amplifiers in a transconductance configuration (they provide linear power feed and have voltage inputs with current outputs: (Col 10 lines 1-10). Amplifiers 802 and 806 (Fig. 9) are transconductance circuits coupled to a shared gain section comprising amps 800 and 804. The transconductance circuits comprise feedback resistors 820,818, and 848, and input resistors 842, and 824.

As per **claim 9,** in Caine's Fig. 9 first front end circuit 802 has resistor 824 coupled between the gain section 800 and input to transconductance circuit 802. The device further comprises second transconductance circuit 806 receiving and input through feedback resistor 844 from gain section 804. Front end circuit 802 is setup to receive Low voltage signals (Vdac) and transconductance circuit 806 is setup to receive low voltage ringing signals (in the case of the unbalanced ringing mode (Col 10 lines 27-39 Figs. 9,10b).

As per **claim 10,** claim rejected for same reasons as claim 9 rejection.

As per **claim 11,** claim rejected for same reasons as claim 24 rejection.

As per **claims 12-13,23,35,** Caine's SLIC has selectable battery (bias) voltages for different modes of operation (Col 4 lines 1-10).

As per **claim 14,** the low voltage section receives (via a battery monitor unit) an indicator of the battery voltage Vm (Col 10 lines 60-67).

As per **claim 15,28,** Caine's SLIC further comprises sensor 858 (Fig. 9) operative to provide summation for differential voice signals and cancellation of common mode signals.

As per **claim 16,29,** the SLIC further comprises an output of the sense amplifier (from amplifier 804, Fig. 9) VM that is used for a feedback loop for the low voltage section to synthesize an impedance for the SLIC (Col 6 lines 20-67).

As per **claim 17,30,** the SLIC further comprises tip/ring voltage detectors complementary-polarity coupled across tip/ring sense resistors 826,846 (Fig. 9).

As per **claim 18,32,** claim rejected for same reasons as claim 17 rejection. The resistors are coupled to the tip/ring amplifiers.

As per **claim 19,31,** Examiner takes official notice that it is well known in the art to provide transient (lightning) protection to controllably limit transient current for the purpose of protecting the SLIC circuitry.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alexander Jamal whose telephone number is 703-305-3433. The examiner can normally be reached on M-F 8AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Curtis A Kuntz can be reached on 703-305-4708. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9306 for regular communications and 703-872-9315 for After Final communications.

AJ
September 23, 2004

CURTIS KUNTZ
SUPERVISORY PATENT EXAMINER
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